November 2000

Review of Transco's price control from 2002

Update paper

Executive Summary

This paper provides an update on the development of new price controls to apply to Transco from 1 April 2002. Ofgem published an initial consultation document on this price control review in May 2000¹, which was followed by a public seminar in August. Amongst the views expressed at that seminar was a request for more information on the progress of the review ahead of the next formal consultation paper, which is due in February 2001.

This paper reports on Ofgem's progress in:

- defining the number and scope of price controls to apply from April 2002 and the associated form and structure of those controls;
- defining output measures for each price-controlled business, and selecting those output measures where Transco's performance should be linked to financial incentives within its new price controls;
- assessing Transco's efficiency, including the monitoring of Transco's capital expenditure during the current price control period; and
- establishing the appropriate regulatory value to assign to shareholders past investment in Transco.

In a separate document, Ofgem will be consulting shortly on appropriate long-term incentives for investment in transmission capacity on Transco's National Transmission System (NTS).

Although this paper is intended principally as an update, it identifies a number of areas where Ofgem would welcome views. In addition, Ofgem is proposing to hold a seminar in December to discuss its approach to developing output measures and incentives. Details of this event are set out in Appendix 3.

¹ "Review of Transco's price control from 2002, Initial Consultation Document", Ofgem, May 2000

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1. Introduction

- 1.1 In May 2000, Ofgem published the Initial Consultation Document on the review of Transco's price controls to apply from April 2002.
- 1.2 Ofgem has received written responses to that consultation and, in addition, a seminar was held on 9th August to give industry and consumer representatives the opportunity to comment further on the main issues raised in that document.
- 1.3 This paper provides an update on the progress made in taking forward the issues raised in the May document. The responses to the consultation document are summarised in Appendix 1 and the matters raised at the seminar are summarised in Appendix 2.
- 1.4 In August, Ofgem appointed accountants Mazars Neville Russell as consultants to assist with the development of new price controls and, in particular, to carry out work to establish efficient levels of capital and operating costs for the Transco business over the next control period. Mazars have appointed Petroleum Development Consultants as technical consultants and Europe Economics as economic consultants to assist them in this task.
- 1.5 Ofgem has prepared a Business Plan Questionnaire (BPQ) which provides the framework for Transco to provide information to Ofgem on its historic performance and its business plans, including cost forecasts, for the period to 2007. Transco has also been asked to describe the approaches which it uses in running the different parts of its business. Transco has agreed to complete and return the BPQ by 18 December this year. Ofgem will analyse the BPQ response and determine efficient levels of cost.
- 1.6 In December 1999 Ofgem reported on its progress in monitoring Transco's capital expenditure since the last price control review, and sought views on the way forward. Responses to that document were summarised in the May price control document. Having taken account of those views, Ofgem and Transco established a framework earlier this year for the monitoring of capital expenditure. In September this year Transco reported on its expenditure in the years 1997, 1998 and 1999 against that framework, and in October Transco

provided a draft variance report which compares actual performance against the performance forecast at the time the present price control was set (in 1997). Mazars are currently carrying out an audit of this data, including the variance report. The audit by Mazars is expected to be completed in December this year at which point the audit report will be placed on Ofgem's web-site.

- 1.7 As part of the development of the next price control framework, Ofgem is developing a set of output measures for Transco. These outputs may be used to define Transco's required level of performance under the price control, or to inform future decisions. Ofgem has also carried out work on defining the boundaries of individual Transco businesses for price control purposes. Consideration has been given to the output measures appropriate to individual Transco businesses.
- 1.8 This paper provides information on Ofgem's progress in the following areas of work as part of the price control review:
 - Chapter 2: defining the business boundaries for price control purposes and the scope of each control;
 - Chapter 3: identifying the appropriate output measures to use to monitor the performance of each business and deciding which measures it would be appropriate to use for the following purposes:
 - to incentivise Transco's performance by adjusting revenues in the price control;
 - to incentivise Transco's performance through contractual means (eg through the Network Code);
 - to form part of Transco's licence; and
 - to provide background information on Transco's performance but with no financial incentives attached.
 - Chapter 4: analysing capital and operating costs, including the development of the capital expenditure monitoring framework; and

♦ Chapter 5: establishing Transco's regulatory asset value.

1.9 Chapter 6 then sets out the timetable and way forward for consulting on and

resolving the issues under consideration as part of the price control review.

Responses

1.10 Although this paper is principally intended as an update, a number of areas are

indicated where Ofgem would welcome views. If you would like to comment

on these issues, please respond by 5 January 2001. Written responses should be

send to:

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Electronic replies should be sent as an MS-Word document or else in the main

body of the e-mail message. Please mark your comments clearly if you consider

that they must be regarded as confidential. Ofgem would prefer that responses

are provided in a form that can be placed in the Ofgem library.

2. Business boundaries and form of controls

Introduction

- 2.1 In line with the duties placed upon Ofgem by the Utilities Act, the review of the Transco price control is driven by the principle of protecting the interests of consumers, where appropriate by promoting effective competition in commercial activities connected with the transportation of gas. In setting the price control Ofgem will also have regard to the promotion of competition among shippers and suppliers and where possible in Transco's transportation system activities.
- 2.2 Transco's existing price control was set so that a single revenue control covered all of its main activities excluding LNG storage. In May 2000, Ofgem published final proposals for splitting Transco's current price control into separate price controls for transportation, metering and meter reading². The separate controls remain consistent with the overall control put in place in 1997. Subject to Transco's consent, Ofgem intends to formalise the associated licence modification shortly.
- 2.3 In the May 2000 Initial Consultation Document, Ofgem considered whether the next price control should be further disaggregated. This would reflect the different roles of the National Transmission System (NTS), Local Distribution Zones (LDZs), metering and meter reading functions, and the different levels of competition in these markets. The option of having either a single control for all LDZs or separate controls for each was discussed, as was the separation of the Transmission Asset Owner (TO) and System Operator (SO) roles within the NTS and the LDZs. The treatment of the connections function within the price control was also considered.
- 2.4 This chapter sets out Ofgem's further thinking on the appropriate extent of disaggregation and the form of the separated businesses and their associated price controls for the next price control period.

 $^{^2}$ "Securing effective competition in gas metering and meter reading services. The Director General's final proposals.", Ofgem, May 2000

2.5 The price controls will make allowance for the environmental and safety expenditure necessary to meet Transco's statutory and other obligations in these areas. In developing the form of controls, Ofgem will have regard to the need for incentives which are consistent with environmental objectives while driving the efficient use of resources. Ofgem will also aim to ensure that overall prices to customers are no higher than necessary and are consistent with Ofgem's Social Action Plan objectives.

The scope of separate controls

- 2.6 Ofgem has considered the responses to the May 2000 consultation document and proposes that the following level of disaggregation is appropriate for the next price control period from 1 April 2002:
 - separation of the price controls between the NTS and the LDZs. This may include either a single price control for all LDZs, or separate controls for each; and
 - within the NTS, further separation of the roles of TO and SO. Broadly, the TO owns and maintains the network, while the SO is responsible for the short-term operation of the system including energy and system balancing functions.

The rationale for these proposals is set out below.

NTS Control

Responses to May Consultation

2.7 There was general support for splitting the NTS and LDZ price controls.

Reasons such as greater transparency, improved cost reflectivity, easier comparison with other companies, the opportunity to adopt different control durations and improved competition were stated. However, there was some concern as to whether the costs of implementation and regulation would outweigh the benefits, and whether the assignment of activities between the businesses could be fully resolved by 1 April 2002. There was support for the establishment of separate controls for the TO and the SO, but some respondents

felt that separate monitoring, and perhaps incentives, for the TO and SO would be appropriate at this stage, without splitting the price controls.

Ofgem's proposals

- 2.8 Ofgem considers that the differing roles of the NTS and LDZs make it appropriate to separate the price control. The roles differ in that, while the NTS provides bulk transportation and is a hub for gas marketing and balancing, LDZ demands are driven by the aggregate demand of individual end users. This is reflected in the different capacity regimes which have evolved. Separate price controls within Transco's Public Gas Transporter (PGT) licence will allow incentives to be set which are appropriate to the different roles.
- 2.9 Ofgem is also investigating separate controls for the TO and SO activities within the NTS. These would provide clearer incentives for each business and may, in the future, allow the introduction of competition in the provision of one or both of these services. Any associated implementation costs will be investigated as part of the efficiency study being carried out by Mazars Neville Russell.
- 2.10 Ofgem believes that it will be possible to identify separately the costs of the TO and SO in sufficient time for separate price controls to be set from 1 April 2002. The methodology for doing this is under discussion with Transco, and disaggregated data will be provided in the response to the Business Planning Questionnaire.
- 2.11 Under separate price controls, the TO would be primarily an asset management business, concerned with the ownership and efficient maintenance of the assets. Previous regulatory reviews have concluded that in such cases strong efficiency incentives are created by the use of an RPI-X form of control. However, such incentives may be stronger on operating expenditure than on capital expenditure. This is because, depending on the way RPI-X is applied, reductions in operating costs can have a more direct effect on profits. In addition, there may be incentives to delay capital investment until towards the end of the price control period to gain cash flow benefits.
- 2.12 A further problem is that it is difficult to predict accurately capital expenditure requirements for the full price control period, which has typically been of 5 year

duration. This is mainly due to uncertainty in future supply and demand patterns. In previous reviews, capital expenditure has been estimated for a base case scenario and allowed revenues calculated on this basis. These revenues have been adjusted for demand during the review period through the use of a volume-based revenue driver mechanism. However, such mechanisms cannot accurately model complex relationships between demand and costs. Differences between the base case and the actual requirements may therefore lead either to windfall gains for the regulated company, or to it receiving insufficient revenues to cover the costs of meeting its output obligations.

- 2.13 Ofgem therefore proposes that in the NTS TO control a link is introduced to the achievement of detailed output measures, with allowed revenues being corrected where actual performance differs from specified levels. This approach is discussed further in Chapter 3. Such mechanisms will be supported by an ongoing regime of capital expenditure monitoring, as discussed in Chapter 4. They will also need to be consistent with the outcome of the review of long-term investment signals, on which a separate consultation document is being published shortly. A decision document on the outcome of that review will be published at the same time as the initial thoughts consultation document on the price control review in February 2001.
- 2.14 The SO will be incentivised to carry out efficient energy and system balancing through mechanisms being developed as part of the reform of the gas balancing regime under the New Gas Trading Arrangements (NGTA). Ofgem will be consulting separately on these changes. The need for a price control for the SO to sit alongside these incentives and the form of any SO control is for further consideration.

LDZ control

Responses to May consultation

2.15 While there was strong support for the separation of NTS and LDZ price controls, views on the use of individual LDZ controls were mixed. Some felt that separate controls would allow zonal competition to develop and would make allowed revenues more cost reflective.

- 2.16 In commenting on the possible adoption of individual LDZ controls, the following concerns were raised:
 - under common ownership, Transco may have incentives to restrict the
 performance of the most efficient LDZs to prevent their performance from
 leading to tougher cost targets for less efficient LDZs. Such incentives may
 arise if comparitors are used;
 - ◆ secondly, depending on how costs are allocated and the assignment of Transco's regulatory value between LDZs, separating the LDZ controls could lead to variations in LDZ transportation charges in different parts of Great Britain. Although such price signals should in principle promote more efficient use of Transco's assets, in practice it would be difficult for most customers to respond to them; and
 - the increases in internal costs to Transco and in the regulatory burden may outweigh the benefits of such disaggregation.

There was wide support amongst these respondents for the gathering of information by LDZ.

2.17 Transco supported measures to increase the financial incentives on LDZs through the introduction of competitive pressures and suggested that the incentives could be further strengthened if separate price controls existed for each LDZ.

Ofgem's proposals

- 2.18 Ofgem wishes to incentivise performance while not hindering any proposals which Transco may have to restructure its business, where such restructuring is in the interests of customers. Ofgem also supports the concept that different business areas within Transco should be set appropriate management incentives.
- 2.19 The Business Planning Questionnaire requests all data associated with the LDZs to be provided separately for each LDZ. Forecasts of any additional costs associated with the splitting of the price control by individual LDZ will also be provided. Collecting this information on a disaggregated basis will allow variations in the nature and performance of individual LDZs to be identified.

- 2.20 In its response to the May 2000 consultation, Transco stated its desire to have separate LDZ businesses with their own ring-fenced profit and loss accounts and price controls.
- 2.21 A possible structure for the various transportation businesses under such a scenario is shown in Figure 2.1. Within this structure, LDZs could be owned by parties other than Transco.

End Customers

Shippers

LDZ TO1

LDZ TO2

LDZ TO n

NTS TO

NTS SO

LDZ SO1

LDZ SO2

LDZ SO n

Figure 2.1: Possible future structure of transportation businesses

Note: The broken lines indicate the price control ring-fences

- 2.22 It is for consideration whether such a structure is desirable in the longer term. In the short-term, Ofgem is concerned that there may not be time to develop this regime by 1 April 2002, and that transitional arrangements would be required to prevent unacceptable variations in LDZ transportation charges in some regions.
- 2.23 Ofgem therefore considers that there are arguments for setting a single overall LDZ price control from 1 April 2002, while pursuing the development of performance measures which would be applied to individual LDZs. These performance measures could have an incentive element within the overall price control. Ofgem believes that Transco's business managers could be encouraged to respond to these incentives through the hypothecation of total LDZ revenues to individual LDZs by Transco.

- 2.24 The discussion of outputs in Chapter 3 gives an indication of the areas in which Ofgem is planning to measure Transco's performance.
- 2.25 Ofgem considers that the incentives discussed above could be included within a RPI-X form of price control.
- 2.26 Ofgem does not consider it appropriate at this time to further disaggregate the LDZ price control into TO and SO roles. To do so might lead to undue complexity over the responsibility for security of supply. At the same time, Ofgem recognises that efficiency may be enhanced if LDZ managers seek out the optimum approach to meeting the needs of their customers.
- 2.27 At present, Transco has a single department responsible for the operation of its system. This department includes the NTS control room, plus four regional control rooms which operate three LDZs each. If Transco decides to keep this organisational structure in place for the next price control period, this department would act as the NTS SO, while contracting with the LDZs to provide their SO requirements.

Provision of services nationally

- 2.28 Certain activities carried out within the LDZs are currently organised on a national basis. This applies, for example, to the Emergency Service, some procurement activities, Licence to Operate and compliance activities. Ofgem intends to identify the extent to which individual LDZs use these services, and to allocate their costs accordingly.
- 2.29 Currently non-Transco PGTs have chosen to contract with Transco to procure an emergency service which meets their safety case obligations. In this role, Transco responds to incidents both on its own network and on those of the other PGTs. The revenue Transco receives from these PGTs is not currently regulated through the price control, although Transco appears to be the only provider of this service. If the Emergency Service continues to be run as a national activity, with its services being procured by the NTS, the LDZs and independent PGTs, Ofgem may need to consider whether charges for this service should be subject to some form of separate regulation within Transco's PGT licence.

Metering and Meter Reading

- 2.30 In May 2000 Ofgem published its final proposals for competition in gas metering and meter reading services. Ofgem proposed a modification to Transco's price control to separately identify metering revenues and meter reading revenues within Transco's total allowed revenues, with effect from 1 April 2000. Ofgem's rationale for the licence modification was to ensure that Transco's metering charges more accurately reflect its costs, and to remove the potential for Transco to cross-subsidise its metering services from its monopoly gas transportation activities.
- 2.31 Transco has rebalanced its charges in line with the proposed split price control. This rebalancing of charges involved an increase in metering charges and a reduction in transportation charges.
- 2.32 The separate price controls for metering and meter reading link Transco's allowed revenues directly to the number of meters its provides and the number of meter readings it performs. In addition, there is a 'notional revenues' provision whereby metering allowed revenues are scaled down to the extent that Transco loses market share in metering services and this is not reflected in a reduction in the number of meters Transco provides. Subject to Transco's consent, Ofgem intends to formalise the proposed licence modification shortly.
- 2.33 In September 2000, Ofgem published a survey document as part of its review of the development of the competitive market in metering. Ofgem intends to publish the findings of its review in December 2000. The review will inform Ofgem's thinking on whether and how Transco's metering and meter reading activities should be price controlled from 1 April 2002.

Sites and Meters database

2.34 Transco currently operates a database of all sites and meters on its system. This database serves a number of different purposes for Transco in its role as a PGT and in its role as a provider of metering and meter reading services. As part of the move to a competitive market in metering, we understand that Transco is proposing to establish separate IT systems for its metering and meter reading activities. Such separate metering and meter reading databases would operate

independently of the database Transco is obliged to maintain in its role as a PGT.

Connections

- 2.35 Transco has an obligation under section 10 of the Gas Act to connect certain customers within 23 metres its mains. Under condition 5 of its PGT licence, Transco is required to provide the first 10 metres of service pipe within the public highway free of charge to customers expected to consume up to 73,200kWh per annum. Final connections (i.e. connecting a service pipe to the main) are also provided free of charge to customers consuming less than 2,196,000kWh per annum. The costs associated with the latter two obligations will be taken into account when setting the LDZ price control.
- 2.36 Other costs incurred by Transco's PGT business in providing connections are met by customer contributions. Under the proposed competitive arrangements, customers will have the option of procuring some or all of the works directly from other approved parties. The costs recovered by contributions will therefore be excluded from the price control.
- 2.37 Transco is planning to separate its connections construction businesses from its licensed transportation activities. In setting the next price control, Ofgem expects that if a customer contracts with Transco for the provision of a connection, Transco will procure the necessary construction from a competitive market. Suppliers to this market might include a Lattice Group business, as well as other approved parties. The connections business within the Lattice Group should therefore exist in a competitive environment, and should not need to be price controlled.
- 2.38 However, Ofgem will continue to monitor the development of competition within the connections market.

Summary of Issues

- 2.39 The thoughts presented in this chapter are summarised as follows:
 - separate price controls for the NTS and LDZs are felt to be appropriate, with further disaggregation within the NTS control to recognise the separate roles of the TO and SO;
 - an RPI-X form of price control may be appropriate for the NTS TO, with adjustment mechanisms to be based on performance against output measures and the interaction with market mechanisms;
 - the NTS SO will be incentivised within the NGTA balancing regime (these proposals are currently being developed separately);
 - a single overall RPI-X LDZ price control may be appropriate, with incentives based on the performance against output measures of individual LDZs; and
 - the LDZs will be responsible for the operation of their own networks. As an interim organisational measure, it may be appropriate for the existing Transco SO department to remain in place, to carry out the NTS SO role and to act as a sub-contractor providing SO activities to the LDZs.

3. Output measures

Introduction

- 3.1 The May 2000 paper described Transco's existing public, shipper and connection standards of service. Ofgem published a consultation paper on guaranteed and overall standards of performance³ in October and as part of the price control review Ofgem is considering whether additional standards should be introduced, and whether Transco's performance against a number of "key" output measures should be linked to direct financial incentives.
- 3.2 This chapter describes the background to Ofgem's current work on output measures, progress to date in identifying activities which should be covered by output measures or new standards of service, and initial thoughts on the definitions of some of these measures.

The role and objectives of output measures

- 3.3 Transco's current price control is of the RPI-X form. As discussed in Chapter 2, RPI-X provides strong incentives for the regulated company to reduce costs. For this reason, Ofgem considers that the use of this form of control will continue to be important in the next price control period. On the other hand, there is a concern that as cost savings become harder to achieve, the control may incentivise Transco to reduce costs at the expense of lower standards of service to customers.
- 3.4 One approach to meeting this concern is to provide clearer incentives on Transco to deliver an appropriate level of service to its customers. The first step in this process is to identify those services (or outputs), which are most relevant to Transco's customers. It is then necessary to consider whether the best way of setting clear and sufficient incentives for Transco is through the setting of standards of service implemented through its licence or the Network Code, or through incentivised adjustments to allowed revenues under the price control as is proposed in the Information and Incentives Project for electricity distribution businesses.

³ "Guaranteed and overall standards of performance – A consultation paper" Ofgem, October 2000

Regulatory framework

3.5 The quality of service Transco provides to shippers and end customers is subject to existing regulation in a number of areas. In particular, a number of standards of service exist, and these are currently being reviewed. There are therefore a number of ways, including through price controls, in which Transco's quality of supply to shippers and end customers may be incentivised. These are described in the following paragraphs.

Voluntary standards of service

3.6 Ofgas agreed a set of public standards of service with Transco in 1996, which include standards of service on telephone calls, correspondence, visits, the emergency service and the provision of alternative heating and cooking in a supply interruption to relevant domestic customers. Where Transco fails to provide the appropriate level of service, it pays fixed compensation to those individuals affected.

Connections standards of service

3.7 In February 1999 Ofgas issued an enforcement Order under Section 29 of the Gas Act 1986 to address poor performance by Transco in the provision of quotations for connections. Consequently, Transco introduced a set of standards of service for quotation requests and connection enquiries. Transco has to make compensation payments where its monthly performance falls below the national standard or where the performance for an individual customer falls below the overall customer standard.

Guaranteed and overall standards of service under the Utilities Act 2000

- 3.8 The Utilities Act allows Ofgem to set guaranteed and overall standards of service for gas transporters, in consultation with energywatch (formerly known as the Gas and Electricity Consumers Council), the licensee and other interested parties.
- 3.9 Transco's guaranteed standards of service will set service levels that must be met in each individual case. If Transco fails to provide the required level of service, it will be required to pay fixed compensation to the affected customer.

- 3.10 Transco's overall standards of service will cover areas where it is inappropriate to give individual guarantees, but where customers in general have a right to expect Transco to deliver pre-determined, minimum levels of service. The Utilities Act also allows the imposition of a financial penalty if Transco fails to meet the level of service described by the overall standards.
- 3.11 Ofgem's October consultation paper on guaranteed and overall standards of performance puts forward proposals to convert a number of Transco's existing public standards of service into guaranteed and overall standards of service. Ofgem is also consulting on whether to introduce additional standards for connections (based on those introduced under the Order referred to in paragraph 3.7), supply outages and notifications of entitlement to a compensation payment.
- 3.12 Where Ofgem is proposing to convert existing public standards into overall standards, the performance targets are also being reviewed. Ofgem will take the results of this work into account when setting the price control. Ofgem expects Transco to report on guaranteed and overall standards of service on an LDZ-by-LDZ basis for informational purposes as well as a national basis.

Shipper standards of service

- 3.13 Transco's Network Code contains a package of shipper standards of service and liabilities, which cover metering, supply point administration, invoicing, continuity of supply to I&C customers and other services including UK Link.

 Transco also has an obligation under the Network Code to make payments to shippers where it fails to make gas available to domestic customers.
- 3.14 Existing shipper standards of service may be revised or new standards introduced through a Network Code modification. These may be proposed by either Transco or shippers. As part of this consultation, these parties are invited to consider any new standards which should be introduced, to allow these to be taken account of in the price control.

Data quality and customer transfers between suppliers

- 3.15 There is continuing concern from shippers regarding the quality of Transco's data on its sites and meters database and the timeliness of customer transfers. Possible measures of the quality of service include the percentage of customer transfers satisfactorily completed within a given time-scale. It would be necessary to define satisfactory transfers as it would not be appropriate for erroneous transfers to be classed as completed.
- 3.16 Ofgem will be publishing a consultation document on the customer transfer process shortly. The document will examine the current processes employed to transfer customers between competing gas and electricity suppliers with a view to understanding whether these processes properly meet the requirements of customers and industry participants. It indicates areas of concern with the current process, identifies where improvements could be made, and explores alternative approaches and potential models to achieve improvements.

Operational and invoicing queries.

3.17 Ofgem considers that it may be appropriate to introduce output measures on the resolution of operational and invoicing queries in the Network Code. A number of shippers have been working with Transco to develop a standards of service package to achieve immediate improvements in shipper query management. The work suggests that the percentage of queries resolved within 10 days and the percentage of queries resolved within 20 days may be appropriate measures of quality of service in this area.

Incentives under the price control

- 3.18 Ofgem considers that where standards of service are defined under the Utilities Act, Transco's licence, the Network Code or other contractual arrangements, the associated liabilities should be included within these mechanisms, rather than directly within the price control formulae.
- 3.19 For some activities it may be more appropriate to incentivise Transco directly through the price controls. Ofgem wishes to identify output measures against which it may be appropriate to provide such incentives. These are likely to be

- measures which have a direct effect on the gas market as a whole rather than on individual shippers or end customers.
- 3.20 Two existing areas of work are relevant to this: the Information and Incentives Project (IIP) which is intended to improve incentives on electricity distribution businesses in the area of service performance; and the current programme of work on monitoring Transco's capital expenditure.

Information and Incentives Project (IIP)

- 3.21 The IIP aims to develop improved incentives on the electricity distribution businesses to deliver the appropriate quality of service. An important aspect of the work done so far is improving the information that Ofgem collects on key areas of service performance. This information will be used to develop an incentive regime for a small number of output measures.
- 3.22 In September 2000 Ofgem published its final proposals⁴ on the definition of output measures for the electricity distribution businesses. Ofgem considered that the output measures should address the number and duration of interruptions to supply that individual customers experience, and the response that customers receive when they contact the distribution businesses in terms of the speed and quality of response.
- 3.23 The IIP also aims to help ensure that short-term performance incentives do not cause medium-term performance to be weakened. There may also be a concern that, in future, as cost savings become harder to achieve and companies take different approaches to maintaining their networks, the risk of a decline in medium-term performance increases. Ofgem intends the broad framework for monitoring medium-term performance to be based on analysis of fault rates and fault causes, a detailed narrative by the distribution businesses and activity-based information, such as the number of poorly performing asset types replaced.
- 3.24 The broad approach to developing output measures for Transco is intended to follow that used in IIP, but the output measures and the method of incentivisation may differ to reflect the characteristics of Transco's business.

⁴ "Information and incentives project – Output measures and monitoring delivery between reviews – Final proposal" Ofgem, September 2000

3.25 Ofgem's work on the IIP for the electricity distribution companies emphasises that it is important to keep the number of outputs subject to direct financial incentives to a minimum. Increasing the number of output measures may overly complicate the incentive regime and reduce the strength of the incentives.

Outputs related to capital expenditure

- 3.26 In December 1999 Ofgem published a consultation document on its progress in monitoring Transco's capital expenditure⁵. Since then Ofgem and Transco have defined outputs as part of the process of developing a detailed capital expenditure monitoring framework, which is described in Chapter 4.
- 3.27 The capital expenditure monitoring framework was developed after the present price control was set by Ofgas, based on recommendations made by the MMC. The output levels assumed by the MMC were not defined to the level of detail necessary for capital expenditure monitoring purposes, and costs and workloads were not allocated to outputs. The reporting for the years 1997, 1998 and 1999 has therefore required the application of some subjective judgement in converting the MMC recommendations into specific output measures and targets.
- 3.28 In the proposals for the next price control period, Ofgem is considering linking a proportion of Transco's allowed revenues to the achievement of outputs. This will require improved reporting of capital and operating expenditures (actual and forecast) and of performance on an on-going basis.

Developing output measures

3.29 As part of the process of gathering information on Transco's expenditure and performance for the price control review, Ofgem has identified a list of output measures which are currently used, or could potentially be used, for monitoring performance or applying incentives through the price control or other mechanisms. This covers the majority of Transco's services to shippers and end customers:

⁵ "Monitoring Transco's Capital Expenditure – A Report and Consultation Document" Ofgem, December 1999

- Transco's existing standards of service (including voluntary, shipper and connections standards);
- measures of customer satisfaction;
- performance measures including the performance of Transco's IT interface with shippers/suppliers and end customers;
- outputs derived jointly by Ofgem and Transco during the development of the capital expenditure monitoring framework;
- supply and demand outputs; and
- outputs applying to the system operator.
- 3.30 Ofgem recognises that there are areas in which it may be inappropriate to introduce output measures. For example, if a service is contestable, competition should be allowed to provide incentives to ensure that Transco maintains an appropriate quality of service. Further, Transco has certain statutory obligations, including those related to safety and the environment. Ofgem believes these should be outside the scope of financial incentive schemes, although efficient performance may be monitored.
- 3.31 Ofgem has adopted the following three-stage process to identify activities which should be covered by output measures under the price control:
 - considering whether the service is contestable. Competition or the threat of competition should be sufficient to ensure that Transco provides an appropriate quality of service;
 - if the service is not contestable, the following criteria provide some guidance as to whether an output measure is appropriate:
 - it should reflect what customers actually value;
 - the level of service should, at least to some degree, be under Transco's control;

- it should be possible to collect objective information over time (and where appropriate this should be consistent across the LDZs);
- there should be a clear understanding of whether variations in the output measure indicate an improvement or degradation in performance; and
- if output measures are found to be appropriate, it is necessary to decide where they sit within the regulatory framework. The outputs may be most appropriately covered by guaranteed and overall standards of service or contractual mechanisms rather than by incentives under the price control.
- 3.32 As there has been a lack of focus on output measures in the past, it may be appropriate to gather information on Transco's performance in some areas before deciding whether to develop incentive mechanisms. Furthermore, it is important to introduce performance indicators for the longer-term reliability of the network to ensure that Transco does not improve short-term performance at the expense of longer-term network performance.
- 3.33 The criteria set out in paragraph 3.31 are explained in more detail in the following paragraphs.

Reflect what customers value

Domestic customers

3.34 Ofgem's work on the IIP relating to the electricity distribution companies suggests that domestic customers are concerned with the number and duration of interruptions to their supply. The speed and quality of response to telephone calls is also seen to be important. The high level results of Transco's own customer research suggest, amongst other factors, that customers are concerned about transfers between suppliers. Some customers at present are experiencing delays in switching supplier. Other possible concerns include the cost of transporting their gas (or price they pay) and meter accuracy.

Industrial and commercial companies

- 3.35 Ofgem recognises that, amongst others, industrial and commercial customers have expressed various concerns, including:
 - timely completion of network investment;
 - greater choice between interruptible and firm capacity;
 - timely installation of meters;
 - gas quality;
 - meter accuracy; and
 - access to information.

Shippers/suppliers

- 3.36 Ofgem's initial discussions with representatives of shipping and supply companies suggests that they have the following key concerns in addition to those listed above:
 - user friendliness of IT systems;
 - timely query resolution;
 - correct invoices;
 - timely completion of connection; and
 - timely and correct transfers.

The level of the service should, at least to some degree, be under Transco's control

3.37 If Transco is to be incentivised against a set of output measures it is important that they can be attributed to Transco and that it has some ability to influence them. It would be inappropriate to expose Transco to a financial risk if it has no ability to influence the output measures on which the incentive regime is based.

Possible to collect objective information over time

3.38 If the output measures are to be incentivised then it is important that objective information is available or that the output is capable of objective measurement over time. As part of normal business practice, Ofgem would expect Transco to have systems in place to report on its performance in delivering an appropriate quality of service to its customers.

Clear understanding of whether variations in the output measure indicate an improvement or degradation in performance

3.39 It is important that there is a clear understanding of whether an increase or decrease in the level of the output is of benefit or of detriment to customers.

Initial thoughts on output measures and performance indicators under the price control

Output measures under the price control

3.40 Ofgem believes that it is appropriate for the next price control to introduce output measures for the services described below as they appear to be areas valued by customers. However, over time it may be necessary to incentivise additional services which are identified as being of value to customers or where the incentives on Transco to deliver the appropriate quality of service need to be improved.

Provision of NTS capacity

3.41 Ofgem believes that output measures for the NTS should be based on the maximum amount of capacity to be made available at given entry or exit points, as well as a flexibility measure (eg linepack). Each measure should be defined for each year of the price control to ensure that Transco does not leave investment until the end of the price control period. For the next price control the actual amounts of defined capacity to be made available will be determined using information from the Base Plan Assumption (BPA) process and other information that may be available to Ofgem.

- 3.42 Ofgem believes that Transco should be appropriately incentivised to provide the defined output measures, and also have some scope for fine tuning the level of capacity made available around its defined output measures. Transco's incentive scheme and the provision of long-term NTS capacity outputs are discussed in more detail in the forthcoming consultation document on long-term investment signals.
- 3.43 As part of the process of setting output measures for capacity for the price control, Ofgem needs to establish an appropriate demand/supply scenario. Ofgem would therefore welcome views on the appropriate scenario, including the suitability of the baseline scenario presented by Transco in its Ten-Year Statement.⁶ Ofgem will discuss these issues with relevant parties over the next few months. It is recognised that some of these discussions may need to take place on a confidential basis. Particular areas of interest are the future levels of CCGT and CHP generation and the pattern of future supplies.

LDZ continuity of supply

- 3.44 Ofgem believes that the number and duration of LDZ interruptions are the most relevant measures of quality of service in meeting the demand for LDZ capacity.
- 3.45 It is necessary to differentiate between different reasons for interruption. Some customers choose to be interrupted in return for lower transportation charges. Other customers are on interruptible contracts, but not through choice. Ofgem is concerned primarily with the level of non-voluntary contractual interruptions (i.e. the interruption of network sensitive loads) and non-contractual interruptions due to factors upstream of the meter. The latter includes planned interruptions for maintenance and unplanned interruptions due to force majeure, water ingress, Transco's fault and third party damage. (Interruptions downstream of the meter are excluded as these relate primarily to meter work at the customer's request.)
- 3.46 Ofgem therefore believes it might be appropriate to relate incentives to measures of the number and duration of interruptions (or the average number of customer minutes lost through interruptions) due to factors upstream of the meter,

⁶ "Transportation Ten Year Statement" Transco, October 2000

- excluding any interruptions under contractual arrangements voluntarily entered into by the customer.
- 3.47 There may be some circumstances under which customers prefer the restoration of their supplies to be delayed. For example, work on repairing or replacing service pipes may be inconvenient after 7 p.m., because of disturbance to customers or their neighbours. Ofgem therefore invites views on whether:
 - customers prefer gas supplies to be restored as quickly as possible in all circumstances; or
 - customers may prefer a delay in the restoration of supplies, in certain circumstances, to minimise inconvenience.
- 3.48 As part of the price control review, Ofgem needs to decide the extent to which Transco's allowed revenues are exposed to financial incentives. To facilitate this decision Ofgem invites views on how both domestic and industrial and commercial customers value supply interruptions.

Table 3.1: Assessment of possible NTS and LDZ output measures against key selection criteria

	SELECTION CRITERIA				
POSSIBLE	Non-contestable	What	Level of service, at	Possible to	Understanding
OUTPUT		customers	least partially	collect	of what
MEASURES		value	under Transco's	objective	variations in
			control	information	output mean
Provision of NTS	YES	YES	YES	YES, once	YES, once
capacity				outputs have	outputs have
				been defined	been defined
Continuity of	YES	Probably,	YES	Probably, once	Probably, once
supply (Number		based on		outputs have	outputs have
and/or duration		initial		been defined	been defined
of interruptions)		discussions			

System operator (SO)

- 3.49 The primary role of the SO is to achieve efficient day-to-day management of the system, given the endowments of capacity provided by the TO. This includes efficient energy balancing (ensuring that inputs and offtakes of gas balance on the day) and system balancing (or managing short-term constraints). The SO has a number of tools at its disposal in carrying out these tasks, including linepack, the OCM (on-the-day commodity market), LNG and interruption.
- 3.50 The SO also fulfils a number of other roles necessary for system operation. These roles include providing gas quality services and managing "shrinkage gas" on the system.
- 3.51 The form of SO control may be based on providing Transco with incentives to minimise the total costs of day-to-day management of the system. Consideration will need to be given to the interaction between price control incentives and the balancing incentives already in place or any new balancing scheme that may be implemented under the Network Code.
- 3.52 Ofgem is considering whether output measures are appropriate for the SO and therefore invites views on possible output measures.

Collecting information

- 3.53 As there has been a lack of focus on output measures in the past, it may be appropriate to gather information for some services before deciding whether it is necessary to develop incentive mechanisms to ensure an appropriate quality of service. The desirability of such a track-record needs to be set against the importance to customers of Transco achieving the appropriate level of service in a timely fashion.
- 3.54 Ofgem may require additional information to monitor Transco's performance in other areas to ensure that the overall quality of service to customers is not impaired through the introduction of these incentives.
- 3.55 Ofgem believes that it may be appropriate to collect data on the quality of Transco's data and IT systems. Possible information includes the number of errors identified on AT-link or UK-Link each year, the amount of downtime for

- each system, the frequency with which Transco updates address data, the frequency with which this updated data is provided to shippers and the process for registering meter exchange details.
- 3.56 Ofgem invites views on other services, for which it may be appropriate to gather data on performance.

Performance indicators

- 3.57 Ofgem considers it important to monitor a number of additional performance indicators to help ensure that Transco does not improve short-term performance in one area at the expense of another area, or at the expense of the medium-term or longer-term performance of the network.
- 3.58 There are a number of ways of monitoring medium-term or longer-term performance, and it will be necessary to consider the appropriate approach.
- 3.59 Rather than Ofgem specifying particular indicators, it may be more appropriate for Transco to provide an annual narrative statement of the medium and longer-term condition of its network supported by relevant indicators, which may include some of those listed below.
- 3.60 Consideration will need to be given as to the status of any narrative. For example, it may be appropriate to require Transco's Directors to certify each year that it is taking the steps necessary to ensure that it will be able to meet its licence, Gas Act and other relevant obligations over a defined medium-term or long-term period.

ISO accreditation

3.61 Transco has suggested that ISO 9001 accreditation of its asset management policies would provide evidence that the appropriate procedures are in place for maintaining the longer-term reliability of the network and that these are regularly updated as part of an ongoing review process. Ofgem is giving the use of ISO accreditation further consideration. A concern is that the ISO process may tend to focus on regulatory inputs. Also the method of implementation must not inhibit developments in best practice.

Capital expenditure monitoring

3.62 The capital expenditure monitoring framework discussed in paragraphs 3.26 - 3.28 should provide guidance as to whether capital expenditure is being reduced in the current price control period at the expense either of greater costs in future periods, or of the medium and long term reliability of the network.

Mains and services replacement

3.63 Ofgem believes that it is important to monitor the level of mains and services replacement in conjunction with the Health and Safety Executive to ensure that the funding provided through the price control arrangements is being efficiently utilised to meet the agreed safety performance targets.

Mains safety confidence level and publicly reported gas escapes

3.64 Ofgem believes it is appropriate to monitor the safety confidence level of mains and the number of publicly reported gas escapes upstream of the meter as these are important indicators of the longer-term reliability of Transco's pipeline network.

Summary and views invited

- 3.65 Ofgem believes that it is appropriate to introduce incentivised output measures for the following services as part of the price control:
 - the provision of NTS capacity; and
 - ◆ LDZ continuity of supply.
- 3.66 Ofgem recognises that it may be appropriate to collect information on Transco's short-term performance for a number of other services before deciding whether to introduce incentives under the price control or other mechanisms. Ofgem believes that this information should include measures of data quality and of the reliability of Transco's IT systems. Ofgem may also monitor Transco's performance in other areas to ensure that the overall quality of service to

- customers is not impaired through the introduction of incentivised output measures
- 3.67 It is important to have additional performance indicators to monitor the medium and long-term reliability of Transco's networks. These should help ensure that Transco does not improve short-term performance at the expense of the longerterm reliability of the network.
- 3.68 Ofgem would welcome views on the following:
 - what the following categories of customers value:
 - domestic customers:
 - > shippers/suppliers; and
 - > industrial and commercial customers;
 - the selection criteria for output measures;
 - appropriate output measures:
 - for the provision of NTS capacity (including the appropriate demand/supply scenario);
 - for LDZ continuity of supply; and
 - for the SO business.
 - whether incentives relating to these output measures should be implemented through new or additional standards of service or through separate incentives applied to Transco's allowed revenues through the price control;
 - whether customers always prefer gas supplies to be restored as quickly as
 possible or whether they prefer a delay in the restoration of supplies, in
 certain circumstances, to minimise inconvenience;
 - how both domestic and industrial customers value supply interruptions;

- services for which it may be appropriate to collect information on short-term performance without any incentives attached; and
- appropriate performance indicators for the medium and longer-term reliability of Transco's network and the appropriate narrative to be provided by Transco.

Outputs seminar

3.69 Ofgem will be holding a seminar on 11th December 2000 to discuss the issues in this chapter with relevant industry members, including representatives of customers, shippers, suppliers, Transco and energywatch. Primarily it will be an opportunity for views to be expressed on the key measures which will drive the price control incentives. It will also be an opportunity for views on suitable measures of the medium and longer-term reliability of Transco's assets to be noted. Details of the seminar and an application form for those wishing to attend are given in Appendix 3.

4. Transco's operating and capital expenditure

- 4.1 As explained in Chapter 1, Ofgem has appointed consultants to assess the levels of expenditure currently incurred by Transco to determine:
 - Transco's performance since the last price control review;
 - the appropriate allocation of costs between different businesses; and
 - areas where the application of best practice would lead to improved performance and to assess the impact of this on costs.
- 4.2 In addition, Ofgem's consultants will examine Transco's methods for forecasting outputs and expenditures, its plans for further investment and for the pattern of operating costs in the period of the next price control. They will also analyse the relationship between capital and operating expenditure.
- 4.3 Transco will be providing cost and performance information and forecasts in its BPQ returns in December to inform the consultants' work. This chapter summarises information on Transco's operating costs from 1997 to 1999, and describes the progress made with the monitoring of Transco's capital expenditure. It then sets out the proposed approach for establishing the efficient level of expenditure over the next price control period.

Operating expenditure

- 4.4 To establish a baseline for estimating efficient levels of operating expenditure over the period of the next price control, Transco's performance over the current control period must first be analysed to determine if improvements in efficiency have been achieved and, if so, how this was done. Ofgem will then need to determine the scope for further efficiency savings in operating expenditure over the period of the next price control.
- 4.5 The following table shows a breakdown of Transco's controllable operating costs extracted from Transco's Activity Based Costing (ABC) reports for the relevant years.

Table 4.1: Transco controllable operating costs (excluding depreciation and rates)

Nominal prices	1997	1998	1999
·	£m	£m	£m
Activity:			
National Transmission	154	131	132
System			
Local Transmission	74	86	83
System			
Intermediate & Medium	63	59	62
Pressure Distribution			
Low Pressure	241	223	214
Distribution			
Customer services:			
Meter Work	132	102	109
Meter Reading	70	39	36
Service Pipes	93	98	115
Emergency Work	105	119	99
Shipper Services*	196	127	115
Unaccounted for gas	80	42	35
Excluded Services	6	6	5
Total (nominal prices)	1,214	1,032	1,005
Total (2000 prices)	1,312	1,078	1,034

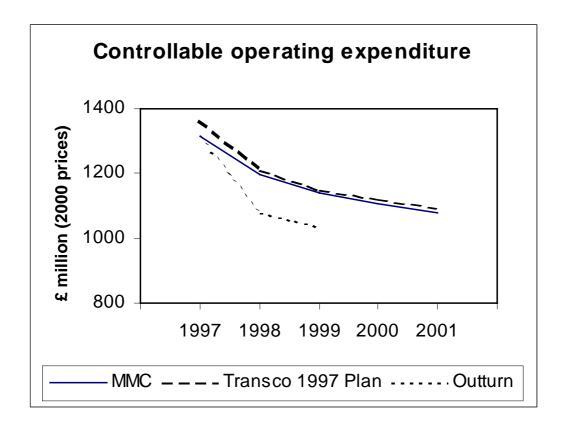
^{*} ABC figures net of depreciation

- 4.6 Controllable operating costs are defined as Transco's total operating costs less formula rates and depreciation. Controllable costs also exclude replacement expenditure.
- 4.7 An indication of the changes in costs over time can be obtained by comparing controllable operating costs in 1997, the first year of the price control period, with subsequent years. During this time total controllable operating costs fell from £1,214 million to £1,005 million in nominal terms, a reduction of about 17 per cent. In real terms (2000 price levels) the operating costs fell from £1,312m to £1,034m, a reduction of about 21%.
- 4.8 The path of controllable operating costs compared to estimates derived from the forecasts made at the time of the last price control review is shown in Fig 4.1.

 The graph shows that Transco has achieved out-turn costs below the forecasts

included in Transco's allowed revenues for the current price control period, with the 1999 out-turn costs approximately 10% below the estimates.

Figure 4.1 Out-turn controllable operating costs compared with 1997 estimates



- 4.9 Analysis of Transco's Activity Based Costing reports together with the reports on operating costs and manpower provided to Ofgem indicates that some of the factors in the overall decreases are as follows:
 - reduced employment and related costs, due in part to reductions in work relating to the opening up of competition in mains to new housing, in new services and meters, and in meter reading; and
 - other factors: lower costs of shrinkage, a reduction in a bad debts, and lower corporate and other allocations.

Total operating costs have also reduced as a result of restructuring costs (including severance) in 1997 and 1998, which have subsequently ceased.

4.10 Ofgem's consultants will seek to understand the changes in controllable costs reported by Transco for previous years and then to discuss and challenge the

assumptions behind Transco's assessment of future costs and efficiency as reflected in its business plans. It will also be necessary to consider the implications of introducing separate controls.

Capital Expenditure

- 4.11 The capital expenditure required to maintain, improve and extend Transco's transmission and distribution systems will be determined partly by the need to replace existing assets and partly by the need to expand the system to accommodate changes in the level and the location of supply or demand. Transco's actual capital expenditure will also be determined by the efficiency of Transco's procurement arrangements.
- 4.12 A key element of capital expenditure will be for the replacement of cast iron and ductile iron mains in line with the policies agreed with the Health and Safety Executive (HSE).
- 4.13 Generally, capital expenditure will give benefits to customers over a number of years. Ofgem will need to consider the extent to which there may be trade-offs between capital and operating expenditure and the period over which any operating costs savings resulting from increased capital expenditure persist.

Capital Expenditure Monitoring Framework

- 4.14 In December 1999, Ofgem consulted on the approach to monitoring Transco's capital expenditure during the current price control period⁷. Subsequently, Ofgem and Transco agreed a capital monitoring and audit framework based on a set of outputs (standards of service) and a method for allocating capital expenditures to these. Each output incorporates a high-level output measure to assess Transco's performance. Performance at a more detailed level is informed by supporting information provided by Transco which enables particular aspects to be tested.
- 4.15 Within the framework, workload and expenditure are allocated to the set of outputs, and Transco reports actual levels of output, workload and expenditure against the forecasts when the price control was set.

⁷ "Monitoring Transco's capital expenditure, A report and consultation document", Ofgem, December 1999

- 4.16 Where variances occur between the actual levels of output, investment and workload, and those that were assumed in setting the price control, Transco provides an explanation. Ofgem's auditors consider the changes in costs, workload and output levels provided to customers, and investigate the reasons given by Transco for any variances.
- 4.17 Where underspends are not due to efficiency gains, or outputs have not been achieved, Ofgem may make appropriate reductions to Transco's allowed revenues over the next price control period.
- 4.18 Within this framework, auditing is to be carried out on an annual basis, providing a snapshot view for the specific report year covering both the data capture procedures used by Transco and the reasons reported by Transco for any variances.
- 4.19 The first Transco variance report and the audit of that report will cover the years 1997, 1998 and 1999. Transco have provided a draft report to Ofgem. The audit is being carried out by Mazars and is expected to be completed in December this year, at which point the audit report will be placed on Ofgem's web-site. The audit report will describe the outputs and the associated output measures used in the capital monitoring framework.

Efficiency Study

- 4.20 Assumptions about the future level of operating and capital expenditure will have a significant impact on the overall level of the next price control. It will be important to consider whether there can be continued reductions in costs, consistent with maintaining or improving standards of service.
- 4.21 Ofgem's consultants will be analysing Transco's costs in detail to understand the allocation of costs to activities and the reasons for changes in the costs over the period. The price control review will build on this appraisal of actual and expected costs based on efficient management practices.
- 4.22 The aims of the efficiency study are:
 - ensure that there is an appropriate allocation of costs between the different businesses:

- to establish the efficient level of costs in the most recent year for which full information will be available (likely to be 1999); and
- to produce projections of the efficient operating and capital expenditure required to deliver defined outputs over the next price control period.
- 4.23 The analysis of costs will include a variety of methods and techniques. These are likely to include the following:
 - examination of Transco's cost attributions, allocations and recharges;
 - an assessment of the factors underlying the movements in costs over the period since the introduction of the existing price control;
 - statistical analysis of costs, drawing on information from the performance of other businesses, to help assess relative efficiency and cost drivers;
 - a study of best operating practices to cast light on relative efficiency and the scope for cost reduction in the future;
 - consideration of the costs and practices associated with the maintenance of the network given the effect on quality of service and the need to understand the relationship between capital and operating costs; and
 - an examination and critique of Transco's forecasts of expenditure over the period of the next price control.
- 4.24 The analysis will also need to investigate individual LDZ operating and capital costs and the extent to which these may be influenced by factors such as the geography and topography of the area, the numbers, nature and density of customers, length of network, standards of service, and operating practices.
- 4.25 Ofgem intends to make the consultants' reports (subject to issues of commercial confidentiality) available on its website when they are finalised, which is expected to be in August 2001.

5. Financial issues

Introduction

- 5.1 The May 2000 consultation document set out a framework for the analysis and assessment of financial issues during Transco's price control review. This involves establishing a regulatory value for Transco's regulated business and estimating a return equivalent to the cost of capital for that regulated business. Other regulators and the Competition Commission (formerly the Monopolies and Mergers Commission(MMC)) have consistently adopted this approach in setting price controls. It will also be necessary to consider Transco's forecast cash flow together with Ofgem's duty to ensure that Transco is able, if efficiently managed and financed, to finance the carrying on of its licensed activities.
- 5.2 Ofgem will set out in the February consultation paper its proposed approach to estimating Transco's cost of capital and to financial modelling. This chapter reports on work by Ofgem relevant to the calculation of Transco's regulatory value. In the last Transco price control review, the capital invested in Transco's business was considered in two parts: an initial value at 31 December 1991 and investment made since 1991. This is the basis on which the remainder of this chapter is structured, although Ofgem also intends to consider evidence on the value of Transco's business based on British Gas plc's market value (and evidence of the market value of its constituent businesses) before 31 December 1991.

Valuation of assets at flotation

5.3 Transco's regulatory value was calculated by the MMC in 1993 and 1997 with reference to British Gas plc's value on 31 December 1991 (that being the last balance sheet date before the issues on which the MMC reported in 1993 had been referred to it). As British Gas plc's market value in 1991 was significantly less than its current-cost book value, assuming a regulatory value equal to its book value would have resulted in windfall gains to shareholders. The MMC therefore calculated an implied value for shareholders' investment in British Gas plc in December 1991 based on its current-cost book value discounted to its

market capitalisation by the application of a market-to-asset ratio (MAR) of 60 per cent.

- In December 1991, British Gas plc carried out unregulated activities, such as its exploration and production (E&P) business, as well as regulated activities (its gas transportation, storage and supply businesses). In setting price controls for the regulated businesses, it is therefore necessary to distinguish between the value of the regulated and unregulated businesses. The appropriate valuation of the unregulated businesses was controversial at both the 1993 and the 1997 price control reviews. During the 1997 review two possible valuations were identified: the unregulated businesses can be valued at an estimate of their market value (the 'focused' approach), or at the MAR-adjusted current-cost book value (the 'unfocused' approach). The difference between the regulatory value calculated using the focused and unfocused approaches at the last review was approximately £1.6 billion.
- In 1997 the MMC based its recommendations on an unfocused approach, and this was reflected in the price control set by Ofgas at that time. However, as explained in the May document, at the conclusion of the last price control review Ofgas stated that it would expect to consider as part of this review how best to value Transco's pre-1992 businesses. Ofgem has confirmed this position on a number of occasions. At present, Ofgem has reached no conclusions on how best to value Transco's pre-1992 businesses and, given the significance of the issue, believes that it is important to consider fully all relevant evidence before reaching a decision.
- Ofgem intends to consider three key issues when estimating the regulatory value of the pre-1992 businesses. The first is regulatory consistency. In its 1997 investigation, the MMC used an unfocused approach to set the regulatory value for Transco's business. However, when establishing regulatory values for other companies, UK regulators and the MMC have tended to use a focused approach. For example, the MMC itself used a focused approach in its report on NIE⁸. Ofgem is not aware of any company other than Transco where UK regulators have used an unfocused approach.

⁸ MMC "Northern Ireland Electricity plc" A report on a reference under Article 15 of the Electricity (Northern Ireland) Order 1992, HMSO, March 1997

- 5.7 Where a focused approach has been used to estimate the regulatory value, a second issue is the type of evidence that has been used in these calculations. In its evidence to the MMC's 1993 investigation, Ofgas suggested an approach which would have been equivalent to valuing the unregulated businesses at their full current-cost value and subtracting this from the trading value of British Gas plc to arrive at the value of the regulated businesses. One reason given by the MMC for rejecting this approach was that to assume that shareholders valued the unregulated assets, but not the regulated assets, at their full current-cost value would be an arbitrary distinction.
- Such arbitrariness might be eliminated by an approach under which the implicit market value for British Gas's unregulated businesses was more clearly based on evidence such as market valuations of similar businesses. This approach was adopted to estimate the appropriate value for Energis to be deducted from NGC's market value in arriving at the regulatory value of its transmission business in the 1996 price control review. In its evidence to the 1997 MMC investigation, Ofgas argued that the market value of British Gas's unregulated businesses was broadly equal to their full current-cost book value. As part of investigating the possible merits of a focused approach, Ofgem therefore intends to review further the evidence on how shareholders would have valued these businesses in 1991.
- 5.9 The third issue is how to attribute the regulatory value for the pre-1992 transportation assets between the different businesses which Ofgem is proposing should be subject to separate price controls. This raises a question of timing: should the 31 December 1991 value be attributed to different businesses, or should it be rolled forward to 1 April 2002 and then be attributed to different businesses? It also raises a question of approach: what information should be used to make this attribution?
- 5.10 If an unfocused approach is used to establish the regulatory value of the regulated businesses as a whole, consistency might suggest using book values to make the attribution between individual regulated businesses. If a focused approach based on market valuations of the unregulated businesses is used, it might be more appropriate to attribute the regulatory value using information on the market valuation of individual regulated businesses. However, this

- information is less likely to be available for the individual regulated businesses (trading, storage, transportation and metering) than for the unregulated businesses. It might therefore be necessary to consider whether to take account of other evidence coming to light post 31st December 1991, such as the market value of Centrica on the demerger from British Gas plc.
- 5.11 In summary, it appears to Ofgem that there are two potential approaches to establishing the regulatory value for Transco's pre-1992 assets: the unfocused approach, or a focused approach based on estimating market valuations for the unregulated businesses and subtracting these from the trading value of British Gas plc at 31 December 1991.
- 5.12 Ofgem intends to consider all relevant evidence before reaching a conclusion on the regulatory value of Transco's pre-1992 assets. It therefore proposes to estimate the impact on Transco's regulatory value of using these two approaches and to publish the results in the February 2001 initial thoughts consultation document, inviting consultees to comment on the appropriate methodology for the calculation of Transco's initial regulatory value. Some respondents to the May 2000 consultation document stated that revising the method for establishing Transco's regulatory value as part of this price control review would increase investors' perceptions of regulatory uncertainty, and consequently might raise Transco's cost of capital. Ofgem is mindful of the benefits of minimising uncertainty over regulatory issues and is therefore committed to reaching a definitive conclusion on the valuation of Transco's pre-1992 assets as part of this price control review.

Investment made since flotation

5.13 The present price control of Transco's business was set in order to finance, amongst other things, network capital expenditure between 31 December 1991 and the end of the current price control in March 2002. The next price control will be similarly set in order to finance both Transco's efficiently incurred network capital expenditure to the end of the current price control in March 2002, and an efficient level for its projected capital for the duration of the next price control. There is no MAR adjustment to the investment made since December 1991: Transco is able to earn a full return on this capital expenditure.

- 5.14 Having established the regulatory value at the start of the present price control period (April 1997), it will be necessary to roll this forward to the end of the next price control period, taking additions, disposals and depreciation into account. To carry out this "roll forward", it will be necessary to establish the level of investment undertaken since the last review and whether this has been efficient. Ofgem's monitoring of Transco's capital expenditure is explained in Chapter 4 above. It is also necessary to estimate the capital expenditure which an efficient company would incur over the next price control period. This work forms part of the efficiency study described in Chapter 4.
- 5.15 In calculating the allowable return on the regulatory value, Ofgem considers that the capital expenditure incurred should be uprated by the value of inflation since the year in which the money was spent in order to reflect the real, rather than the nominal, value of the additions. This approach is consistent with that adopted during the PES distribution businesses and NGC price control reviews.

6. The way forward

6.1 The May consultation document set out the following timetable for the price control review:

Initial consultation document published	May 2000
Draft Business Plan Questionnaire sent to Transco	September 2000
Final Business Plan Questionnaire sent to Transco	October 2000
Completed Business Plan Questionnaire received from	December 2000
Transco	
Initial thoughts consultation document published	February 2001
(including summary of information obtained from the	
Business Plan Questionnaire)	
Draft proposals consultation document published	June 2001
Final proposals decision document published	September 2001
Implementation of new price control	From April 2002

- 6.2 This document has reported on progress since the May consultation and set out further work Ofgem will be carrying out between now and the publication of the Initial thoughts consultation document in February 2001. Specifically:
 - Ofgem will set out in February its proposals for the form and scope of controls, reflecting the final proposals from its review of Transco's long-term investment signals which will also be published by Ofgem in February;
 - Ofgem will hold a seminar on 11 December to discuss its proposals for output measures and associated incentives. Further proposals will be published in the February document which will take account of the views expressed at this seminar, Ofgem's consultation on guaranteed and overall

- standards, proposed new Network Code standards and the final proposals from the long-term investment incentives review;
- ◆ Transco has agreed to complete and return by 18 December the business plan questionnaire sent to it by Ofgem. Ofgem and its consultants are already examining Transco's performance over the current price control period, based on information received from monitoring its capital expenditure. Ofgem expects to place the report by Ofgem's consultants on the audit of Transco's capital expenditure in 1997, 1998 and 1999 on its web-site in December. Information from the BPQ will be published in the February document, although Ofgem hopes to make the information from the BPQ available on its website prior to this; and
- an important issue to be resolved as part of this price control review is the appropriate regulatory value to place on Transco's shareholders' investment in its pre-1992 assets. The February document will set out Ofgem's estimate of this value using the alternative methods described in Chapter 5 above, as well as Ofgem's calculation of the regulatory value for investments made since 31 December 1991. Issues to be considered in estimating Transco's cost of capital and Ofgem's approach to financial modelling will also be discussed.

Appendix 1 Summary of responses to Initial Consultation document, May 2000

Subject	Comment
The regulatory framework	Resolution of issues surrounding NTS Exit capacity, the interruptions regime and the LDZ Capacity: Commodity split are key prior to discussions on the numbers, structure, form and duration of the price controls
	Feel that a longer-term strategy is required when allocating entry capacity rights. Long term capacity incentive revenues should be outside the price control.
	Feel that some "di-minimis" activities may need to be re-examined to remove barriers to competition.
Standards of service	Feel that the current standards of service to both shippers and customers are inadequate. Standards of service related to unbundled activities need to be taken out of the price controls. Any penalties for underachievement of standards of service within the control should not be recovered in the following years.
	Needs to be better communication of Transco's standard compensation payments and how customers claim. This applies particularly to IPGT customers.
	Requires a complete review and supports the use of incentives to meet minimum standards and to meet individual requests for additional services. Enhanced standards should be outside the controls, while provision of minimum standards should be in the control.
	Any unbundling of services must be controlled to ensure that standards of emergency service and safety are maintained
	Support the use of incentives and liabilities to ensure standards are met and believe that the current caps on liabilities should be removed
	 The use of incentives is important to ensure: that Transco is motivated to develop and promote the industry i.e. gaining new customers and delivering schemes such as affordable warmth; Transco do not benefit from lower than forecast demand.
	Believe that the following improvements could be made: • telephone call targets should be tougher i.e. answered in 20 seconds not 30. A clearer definition of what constitutes a response is also required;
	 replies to correspondence should be substantive not just an acknowledgement; notice periods for planned work need to be defined.
	All current standards should be reassessed, with areas where performance standards require particular consideration being the query resolution service and restoration of supply. Reviews should be carried out on a regular basis to ensure there is no negative impact on competition. It is important to clarify responsibility for performance standards in the unbundled services and those still bundled. Standards should not vary according to individual shippers/suppliers needs. Transco charges should be based on the efficient cost of delivery and not on a perceived market value determined by the recipients of the service. The cost of prescribed

	standards of service should be included in the price control calculations.
	Considers it appropriate to re-visit both customer and shipper/supplier standards of service at the time of the price control review, especially in areas such as Transco's query resolution service and restoration of supply. The need for the review is related to the considerable reforms in the competitive market and the gas-trading regime. Capping levels also need to be reviewed as part of the price control review. Any incentives introduced should not allow additional revenue merely for supplying adequate standards of service. This can happen when Transco has access to performance data, which is not available to the shipping companies. Incentives should include both penalties and rewards. Transco's price control and standards of service need to be set so that the
	incumbent supplier does not gain an unwarranted advantage.
	Transco should commit to a review of the existing standards of service and the individual liabilities that are associated. Any incentives established should not allow additional non formula revenue merely for supplying adequate standards of service. This can happen when Transco has access to performance data which is not available to the shipping community. Incentives should include both penalties and rewards.
	For activities, which are open or opening to competition, Transco's allowed revenues should give new entrants sufficient incentive to enter the market, with low enough prices to encourage customers to switch.
Form and structure of future controls	TO and SO should have separate controls as should NTS and LDZ, providing that provision is made to retain any relevant economies of scale. Consideration should be given to separate controls for LDZ's. If given separate controls LDZs could be more effectively controlled through the use of comparitors. Problems are not foreseen given that regional charging has worked in the electricity market.
	In favour of splitting TO and SO into separate controls to provide greater transparency, Feel this will provide clearer definitions of roles of each, reflect the different cost bases of the two functions, allow greater comparison across other industries and reflect the different time horizons associated with asset provision and SO Support the separation of NTS and of the LDZ's to maximise competition in the short term through clear zonal price controls. Believe that price controls should remain for businesses opened up to competition to allow competition to develop. Broad criteria to be met for competition to replace regulation should be established.
	Support the idea of splitting TO and SO, and the introduction of separate price controls for them, to produce improved cost reflectivity for transmission tariffs. Also support the splitting of NTS and LDZ's but of lesser importance than the split of TO/SO. Are concerned about the effects of competition between LDZ's. Propose a 5 year plus duration for the TO, with 2 years for the SO. SO/TO should be split with separate controls.
	Splitting LDZ's and NTS may allow better reflection of the differing cost drivers and capital expenditure requirements of each as would splitting the TO and SO. Separate controls for LDZ's should be benchmarked against each other, or to comparable operators. Transco need to release more data to ensure transparency in monitoring of performance measures for LDZ's. Support the use of incentive schemes for SO and RPI-X for TO but believe

	that whatever is used should include measurement and penalties for not
	meeting standards. Propose one-year duration for SO, and 5-years for TO.
	Feel that incentive schemes need to be unbundled.
	Support the use of 5 year RPI-X regulation, because of the regulatory
	intensity of other forms of control. Support separate price controls for
	separate businesses, assuming costs of regulation are outweighed by
	benefits to customers. Concerned that a full separation between TO and
	SO would add cost. Would prefer incentive schemes, which leave Transco
	some discretion to resolve transmission issues. Propose a detailed debate
	on failings of current structure.
	Support the split of LDZ's and NTS into separate controls, but do not
	support separate controls for LDZ's as there is too much uncertainty.
	However separate identification of LDZ costs supported. Believe that it is
	not possible for the TO/SO to be split as yet and certainly not by 2002
	Don't believe the bulk of the control will be affected by NGTA as this has
	very little bearing on LDZ's
	Energy balancing activity should be outside the price control formula, such that Transco's activities can be controlled as necessary through the
	Network Code and other regulatory tools.
	Where Transco is identified, as the best provider of a central service, the
	costs of that service should be included in the price control calculations.
	Consider that all the connections and network businesses should be subject
	to some form of price control.
	Support the separation of the LDZ's and NTS into separate controls, as this
	will allow more effective targeting of costs and reduce cost smearing.
	Don't believe that splitting the TO and SO will be of any benefit and may
	indeed be to the detriment of the consumer due to duplication of activities
	and less efficient operation. Support principle of mechanisms to
	incentivise Transco through increases or decreases to the allowed revenue.
	Do not want to see separate controls for LDZ's and NTS as it will lead to a
	bias in profitability between NTS and LDZ. In terms of connections it is
	thought that price controls are no longer required due to the levels of
	competition. Feel that ability to differentiate TO and SO price controls is
	required even if it is not implemented on day one
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leave the consumer no room for response other than moving into a new region.
Support the continued use of RPI-X over a 5-year period. Support the move to separate NTS and LDZ controls but not individual LDZ controls, although monitoring of individual performance is appropriate. Does not support a TO/SO split due to the increased complexity and possible conflicts in incentives. Benchmarking is a necessity to allow meaningful efficiency comparisons. Performance incentives for Transco core activities are also proposed, although current uncertainty regarding the development of market mechanisms makes these difficult to define at this time. There is a fundamental conflict between NGTA and a price-controlled monopoly and, due to the uncertainty about stability, it has is difficult to assess the impact it has.
The consultation document pays very little consideration to energy
efficiency, which should be promoted through incentives to meet standards, encouraging efficient use and minimizing leakage. A
comprehensive environmental assessment of the price control is requested. RPI-X is appropriate for non-competitive areas. Duration should be set
according to the nature of the business being controlled. Time limited price-cap arrangements are more appropriate where it is practical to
introduce competition. Suggest a shorter price control with an incentive regime for the SO.
Support a review of possible forms of control, to consider long-term RPI-X, and short-term collar/sliding cap.
TO should continue to be regulated by RPI-X, while SO should be based on funding efficient costs plus an appropriate profit, with incentives designed to allow increased margins for improving performance
RPI-X is the most appropriate long term method for regulation, while incentives should be used in the short term
Support the continued use of the RPI-X approach for its simplicity and efficiency, and it should be used over 5-year periods at least. Short-term controls may be appropriate for activities subject to competition or other pressures.
Want the introduction of a 10-year plan. Also think that provision should be made to cease price controls for elements of Transco's business if made totally contestable before the 5 year term.
Accept the effectiveness of RPI-X, but believe that consideration needs to be given to other approaches where significant capital programmes are involved. Also consideration should be given to a mechanism that allows extra spending on safety measures.
Support the continuation of RPI-X control, while recognizing that the incentives created to achieve efficiency savings are stronger on operating expenditure than capital expenditure. Support the idea of splitting TO and SO but recognize further evaluation needs to be carried out to ensure the benefits outweigh the costs. Also support having differing control periods for the two roles particularly in terms of a shorter period for SO.
Believe that there is potential for benchmarking the performance of Transco as the provider and maintainer of the gas pipeline infrastructure. Support the split up of NTS and LDZ into separate controls but that separating into separate controls for each LDZ would be counter productive. But believe that benchmarking can be used to incentivise the LDZ's.
Support the split of SO and TO into separate controls. SO should be co- ordinated with trading arrangements and so be subject to a 1 or 2 year control period to maintain flexibility. TO should have a 5-year period of control. Support the separate controls of NTS and LDZ's but are sceptical of the

	value of separate LDZ controls. Feel this would create increased risk and complexity for suppliers looking to offer national tariffs and thus favour the dominant supplier whose larger share mitigates the risk. Support the use of benchmarking both internally and externally against other network operators. Believe that it is key for similar approaches to be applied across gas and electricity network operators. Support use of RPI-X for TO, while a more tailored approach should be used in SO that should be focused on reducing balancing costs and closely aligned to gas trading arrangements. Support the idea of splitting the different activities but that this would have to be subjected to an analysis of cost and effort against benefits. But see the two key areas likely to benefit are separate NTS and LDZ and separate TO and SO. Incentives on Transco to invest in new capacity on NTS are critical to the new control. Price control terms should be consistent with the objective to facilitating entry to potentially competitive markets. Fully supportive of separate price controls for separate businesses.
Determining Transco's allowed revenue	Feel that NTS should face a lower cost of capital than LDZ's When planning for cost recovery (e.g. UK link expenditure) this recovery will depend on whether the service is competitive either now or prospectively. Are of the view that cost of capital should be based on longer-term average
	not spot rates. Also Ofgem should take note of the Competition Commission's forthcoming report
	Cost of Capital should reflect risks involved Feel that over and under recoveries from NGTA should be used to bring forward or defer clearly defined capital expenditure programmes.
	Support use of a longer-term framework for reporting progress against Price Control in both opex and capex. Would like to see an examination and reassessment of Transco's investment criteria, and a form of appeal for parties who feel that investment decisions are inconsistent with license objectives.
	Can't comment on the correct cost of capital levels that should be applied, but do believe that different businesses will require different levels. Overall as a low risk business the cost of capital should be low. The relationship between depreciation and Transco's current and future investment and replacement should be considered.
	CAPM has some limitations that need to be addressed
	Believe that the weighted average cost of capital should now be more in line with that of NGC as the two are much more alike now than previously. Believes that considerations for previous under spend must be made to prevent consumers paying twice for one investment. The amount of any adjustment should be designed to ensure that incentives for efficient spending are not reduced. The principle should be that customers are only required to pay for actual levels of prudent spending. Welcome Ofgem's consideration of the impact of NGTA. Would like to extend it to allow flexibility for any future moves towards a market valuation for elements of Transco's outputs, to prevent problems with market valuations in a regulated monopoly environment. Better monitoring methods are required to prevent incentives to delay investment until the end of the control period in order to gain cash flow benefits.
	A range of between 5.5 and 6.25% is recommended for cost of capital.

	Can foresee problems incorporating market valuations into a cost based control. Would like OFGEM to state if they want a cost or value driven control, as the results will differ significantly. Believe that the immature state of the market valuation process means this cannot be relied upon for setting the price control, so support the continuation in the use of a cost based approach. The controls must also be flexible to cope with changes in activities within Transco's ring-fence and the extension of competition, which needs to be encouraged.
Regulatory asset value	Would like to see focused price controls in line with other regulated industries to prevent "invisible contributions" to the unregulated business and to avoid the possibility of cross subsidies.
(RAV)	and to avoid the possibility of cross-subsidies. Despite some concern about increased uncertainty if Ofgem move to a focused approach, believe that there is greater risk if Ofgem do not. A focused approach would be more favourable to the consumers and will also help unbundling of the monopolies leading to better fairer easier regulation. Suggests that the use of an unfocused approach for the previous control meant a regulatory value greater by £2bn than had a focused approach been used. Feels that with BG de-merging their principle non regulated businesses, this money must be repaid to the customers and to do this will
	require a focused approach. Favour a combination approach and ask for a more detailed assessment of current value pre 1992. This will give a high level unfocused review of the pre 1992 value, and a focused calculation of the current value.
	The current value of RAV must be calculated the same way as on previous assumptions as to change will lead to a perception of greater risk. If the RAV is split between the NTS and various LDZ's then this should use the unfocused approach as there is no obvious way to differentiate in terms of MAR
	Believe that a more focused approach is now more practical and useful given the recent unbundling and de-merger of BG and Centrica
	Can see no advantage in re opening old debates and support the retention of the existing methodology
	Feel that the RAV should be determined by the potential to deliver value in the future linked to terminal rate of return. Feel this would encourage investment in new safer equipment.
	Believes revisiting the approach will lead to uncertainty for shareholders and so increase cost of capital. Doubt that the de-mergers are going to give sufficient extra information to allow the use of a focused methodology, and so continue to support the use of an unfocused one. Concerned that changes in depreciation models will not allow Transco to be revenue neutral in the future. RAV segmentation levels must be set at such a level that Transco can reasonably expect to recover costs.
	Believe that a focused approach would be a more accurate method of asset valuation but understand that this will increase the cost of capital and so appreciate this might not be in the consumer's best interest.
	Believe that it is time to move to a focused approach and doesn't accept the inconsistency arguments especially as the de-mergers are being initiated by BG. Also in 1997 Ofgas suggested that the difference between the two approaches was approx. £1.6bn which would impact the consumer considerably. Considers it important for the regulatory asset base to be adjusted to reflect any transfers that may occur. Support the continued use of straight-line depreciation methodology, since reviewing this will lead to costs which may well outweigh benefits.

The RAV should be rolled forward from the previous price control to avoid investors perceived uncertainty. Would support an unfocused approach of rolling forward the vested regulatory asset base.
Support a review the different approaches to RAV. Feel that the vast majority of Transco outputs should be capable of being offered as competitive services. Believe that the unbundled services such be valued in a way that best supports the growth of competition but concedes that regulation is still needed until competition is fully developed.

List of Respondents

Association of Electricity Producers BP Amoco British Gas Trading Clare Spottiswoode Consumers' Association Eastern Energy East Midlands Electricity Energy Saving Trust

ExxonMobil International Gas Consumers Council

Gas Forum

Health and Safety Executive

Northern Electric

Npower

PowerGen

Scottish and Southern Energy

ScottishPower

Society of British Gas Industries

Transco

Uponor

V-is-on gas

Yorkshire Electricity

Appendix 2 - Summary of Transco Price Control Seminar held at the British Library on 9th August 2000

Introduction

Following publication of consultation documents in May 2000 on the price control review and long-term incentives for investment in transmission capacity on the NTS, Ofgem held a public seminar on 9 August 2000.

The forum was organised into four main themes:

- form, scope and structure of controls;
- NTS long-term investment signals and incentives;
- output measures and incentives; and
- efficiency and financial issues.

The speakers were:

- Richard Morse, Deputy Director General, Ofgem (Chairman).
- ♦ Chris Bolt, Regulation Director, Transco.
- ◆ Justin Coombs, Director of Price Controls, Ofgem.
- ◆ Sebastian Eyre, Gas and Electricity Consumers Council.
- Nick Fincham, Director of Competition, Ofgem.
- Steve Ladle, Elf Gas and Power, and Gas Forum.
- Steve Smith, Director of Trading Arrangements, Ofgem.

Opening

Richard Morse presented Ofgem's timetable for the price control review and related work on long-term incentives.

The initial consultation document on the price control review was issued in May 2000. A Business Plan Questionnaire was sent to Transco in October 2000, to be returned by mid-December. An initial thoughts consultation document on the price control review will be issued in February 2001, followed by a draft proposals consultation document in June. The final proposals decision document will be issued in September 2001, in time for implementation of a new price control from April 2002.

Following the May consultation document, initial proposals for long-term signals and incentives for investment in transmission capacity on Transco's NTS is to be issued in the Autumn, followed by a decision document in February 2001.

Form, scope and structure of controls

Ofgem anticipated retaining controls on core transportation but distinguishing between NTS and LDZ's. Competition may be possible in other areas such as metering, meter reading, connections and LNG storage. The responses to the May consultation showed support for RPI-X control for most areas and broad support for separate controls on NTS and LDZ's. Respondents suggested a need to balance benefits of separating controls against the impact on costs.

The approach to metering and connections was explained. Ofgem will need to decide whether to retain price controls, or to rely upon the Competition Act 1998. In assessing prospects for competition in these areas Ofgem will consider Transco's behavior, barriers to entry and evidence of competition. Separating transportation, metering and meter reading had led to lower charges for transportation but higher charges for metering and meter reading. The overall level of charges is unchanged, and the structure of charges is more cost reflective.

It was anticipated that a competitive market review survey of metering and meter reading would be issued in September 2000 with a market review report following in December 2000.

Transco supported Ofgem's priorities in creating competition and reviewing price controls, and wishes to promote further change in the interests of customers and shareholders, for example, to reflect changes in the external environment. It was noted that planning capacity in the NTS is becoming increasingly difficult, due to the uncertainty of gas supply location.

A need for change from the present structure was highlighted. Transco intends to focus on separate NTS and LDZ operating units each with individual profit and loss accounts. Separate NTS and LDZ controls were suggested.

There was discussion over separate LDZ controls, how the regulatory asset value would be allocated, the implications for charges and for the process of deciding outputs and standards of service (should they be set at local or national level?).

The Gas Forum Price Control Workgroup is generally supportive of the ideas being proposed within the initial consultation document. However, changes must still be cost justified, not done purely to meet academic rigour. The Forum supported RPI-X and separate control for NTS SO, NTS TO and a single control for all LDZ's. The Forum supports unbundling with the reservation that it needs to be properly managed with continuing regulation until competition is fully established.

Discussion at the end of the session covered a number of issues including:

the merits of separate price controls for NTS SO, NTS TO and LDZ's and different length control periods for different activities. The necessity to balance the costs of policing separate controls against potential benefits was noted. Transco is developing six national brands that could operate as separate businesses. Ofgem is collecting information for each LDZ to inform the price

control review. Splitting the price controls would therefore not require large amounts of extra information over and above this. There was a debate about the impact of different levels of charges for different regions. Differing standards of service for different regions were also discussed; and

• a number of shippers wanted certainty in charges. However, there is a need for charges to be cost reflective and to avoid cross subsidy.

NTS long-term investment signals and incentives

Ofgem presented an overview of the NGTA programme covering the entry capacity regime, efficient allocation of existing capacity, incentives for Transco to maximise available capacity on the day and for the efficient management of NTS constraints.

Transco's current investment decision framework was outlined. Concern was expressed about the adequacy of information provided to Transco. Short term it is intended to improve the BPA process and provide greater transparency in the way the BPA is used. Longer term a fundamental reform to the process is needed to provide improved BPA returns. The introduction of auctions for long term capacity rights would provide strong investment signals.

Responses to the May 2000 consultation document indicated general support for improving the BPA process, within the context of the current price control. There was support for long-term capacity rights and the use of output measures.

Long term signals and incentives for the NTS were discussed. It was felt that decisions should be integrated with the periodic review. The importance to the industry of decisions on NTS investment and the danger of creating inconsistent or perverse incentives were stressed. The Gas Forum believes that the issue needed to be fully addressed and enshrined within the price control and that resolution is important for both offshore and onshore. There was no universal acceptance that auctions are the best solution for long-term investment signals. Controls of different duration may be appropriate for different parts of the business.

Discussion at the end of this session covered a number of issues including:

- general agreement that improvements to the BPA process and Transco's projections would be beneficial. It was noted that this process has a number of deficiencies, particularly when addressing supplies from outside the UK; and
- greater use of output measures and long-term auctions to facilitate capacity trading was discussed. Long-term signals were needed to provide confidence for offshore investment. Changes to trading arrangements needed to be implemented at the same time as the price control review. Difficulties in developing an entry/exit market mechanism in the next price control period were discussed and the interaction between cost-driven or market-driven mechanisms needed consideration. There was a lack of agreement about the effectiveness of the capacity auctions, with a number of delegates supporting a longer-term capacity market. The low level of capacity trading was a source of concern for Ofgem. There is a need for an effective secondary market for trading capacity, especially if 10-15 year capacity rights are to be sold. Concerns regarding bilateral contracts and their impact on the capacity market were discussed.

Output measures and incentives

Ofgem's views on outputs and incentives were presented. Transco should be incentivised against output measures that are comprehensive, reflecting the range of services which customer's value but do not duplicate each other or create undesirable incentives.

Ofgem is monitoring Transco's capital expenditure and reviewing the significant under spend in the first two years of the current control period. This under-spend may be due to factors outside Transco's control, efficiency or a failure to deliver expected commitments.

Ofgem outlined the Information and Incentives Project that was being developed for electricity distribution. The IIP defines output measures to improve information on both inputs and output performance. It develops additional output-based incentives that could reflect company performance. The main principles are applicable to Transco but there is a lack of direct comparitor companies for Transco. The output measures developed for capital expenditure monitoring provide a starting point for price control measures but there is a need to focus on outputs that customers value. There are a number of areas requiring more thought, including how to address long-term performance.

Transco felt that Ofgem should look at total costs and outputs for the next review period. Customer research is essential in setting up appropriate output measures. Standards of service should also be reviewed at the same time as the price control.

The Gas Forum expressed support for evaluating Transco's performance since the last price control and for benchmarking against similar organisations. Appropriate valuation of assets is necessary to ensure that competition can develop when future unbundling is undertaken. The Forum feels that standards of service should be addressed in the price control.

The GECC's main focus was on working with Transco to reduce the number of complaints about PGT's and promoting and monitoring public standards of service throughout the industry. Standards of service could be derived from other utilities, but must be realistic and be measured in terms of costs and benefits.

Discussion at the end of this session covered a number of issues including:

- correct standards of service were felt to be important. There was a discussion on the need for penalties and incentives to be included in the price control or whether to rely on commercial contracts with liability clauses. The current effectiveness of performance penalties was discussed. Some delegates felt that the provisions for standards of service in the shipper services element of the current control were not working. Under the next control there is a need to look at what services are actually needed and the appropriate incentives to ensure that Transco provide them; and
- ♦ a delegate noted that there is no compensation for IPGT's when their systems are cut off from Transco's network. Ofgem agreed that there were many issues that need to be looked at in terms of the relationship between IPGTs, Transco and customers, but this fell outside the scope of the seminar.

Efficiency and financial issues

Ofgem outlined some evidence on Transco's performance during the current price control period and its proposed approach to setting the next control. Allowed revenue is based on the level of expenditure an efficient business would incur. Ofgem's study of future operating and capital expenditure requirements was outlined. Ofgem intend to undertake benchmarking and best-practice comparisons on a "top-down" and "bottom-up" basis. Ofgem intends to assess the efficient cost of capital as it had in the electricity distribution and NGC reviews.

The current regulatory value is based on the market value of BG at 31 December 1991. Transco's current price control was set using an unfocused regulatory value whereas a focused approach has been used for other price-controlled businesses. In 1997, Ofgas signalled its intention to re-visit this question at the next review. Ofgem will also need to allocate the regulatory value between businesses subject to separate controls.

Financial modelling will be undertaken to calculate allowed revenues such that Transco is able to finance its activities by reference to financial ratios and an investment-grade credit rating.

The importance of management freedom to achieve future efficiency savings was highlighted.

Discussion at the end of this session covered a number of issues including:

- ◆ a debate about the approach to Transco's regulatory value. The MMC had taken an unfocused view for Transco. Ofgas had indicated it would be reviewing its approach in the next Transco review. However, Ofgem's position was open, and it would need to include consideration of regulatory consistency;
- appropriate benchmarks for Transco given the lack of comparability with the UK and the continent. Ofgem intends to use several approaches for assessing efficiency;
- ♦ a discussion of Ofgem's role in environmental issues. It was noted that these must be balanced against other duties. Ofgem aims to prevent price distortions that may cause harm to the environment; and
- representatives would welcome more information during the course of the review. Ofgem said it would be publishing information from Transco's business planning questionnaire response and the outcome of efficiency studies carried out by consultants.

Appendix 3 Outputs Seminar

FORMAT

- 1.1 The seminar will last one morning. The main sessions will consist of a short presentation by Ofgem followed by a short presentation by Transco and then a period for open discussion.
- 1.2 The proposed format is as follows:

Chair – Richard Morse, Ofgem

9.00 – 9.30 am	Registration
9.30 – 10.00 am	Introduction – Justin Coombs, Ofgem
10.00 – 11.00 am	NTS outputs, lead by Justin Coombs, Ofgem Transco input
11.00 – 11.30am	Tea/coffee
11.30 – 12.15am	SO form of control and outputs, lead by Steve Smith, Ofgem Transco input
12.15 – 13.15pm	LDZ outputs, lead by Justin Coombs, Ofgem Transco input
13.15 – 13.30	Close - Richard Morse, Ofgem

Buffet lunch available

VENUE

1.3 The venue is the Rembrandt Hotel, 11 Thurloe Place, South Kensington, London SW7 2RS

INVITATION

RESPONSE FORM FOR ATTENDANCE AT THE SEMINAR ON THE TRANSCO PRICE CONTROL REVIEW

Outputs Seminar 11 December 2000, commencing at 9.30am

Name and position
Organisation
Address
Telephone No. e-mail
Do you have any special dietary requirements? Do you have any other special requirements?

Please send your response by 1 December 2000 to

Graham Jones Regulation and Financial Affairs Office of Gas and Electricity Markets Stockley House 130 Wilton Road London SW1V 1LQ

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